Utilizing an IT LAN as the Physical Security Network

The Advantages and Disadvantages

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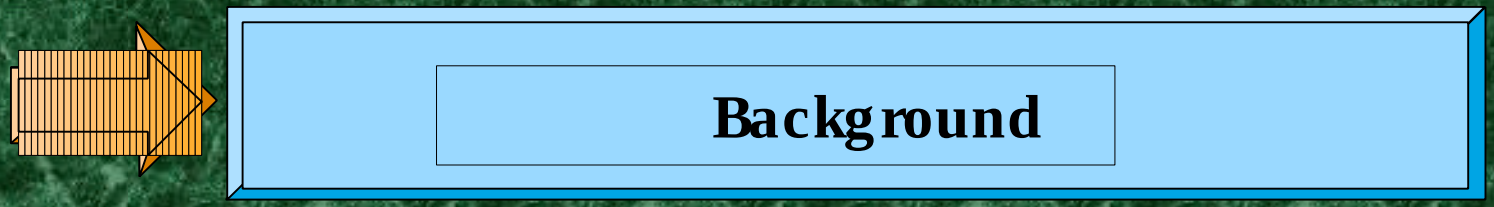

Background

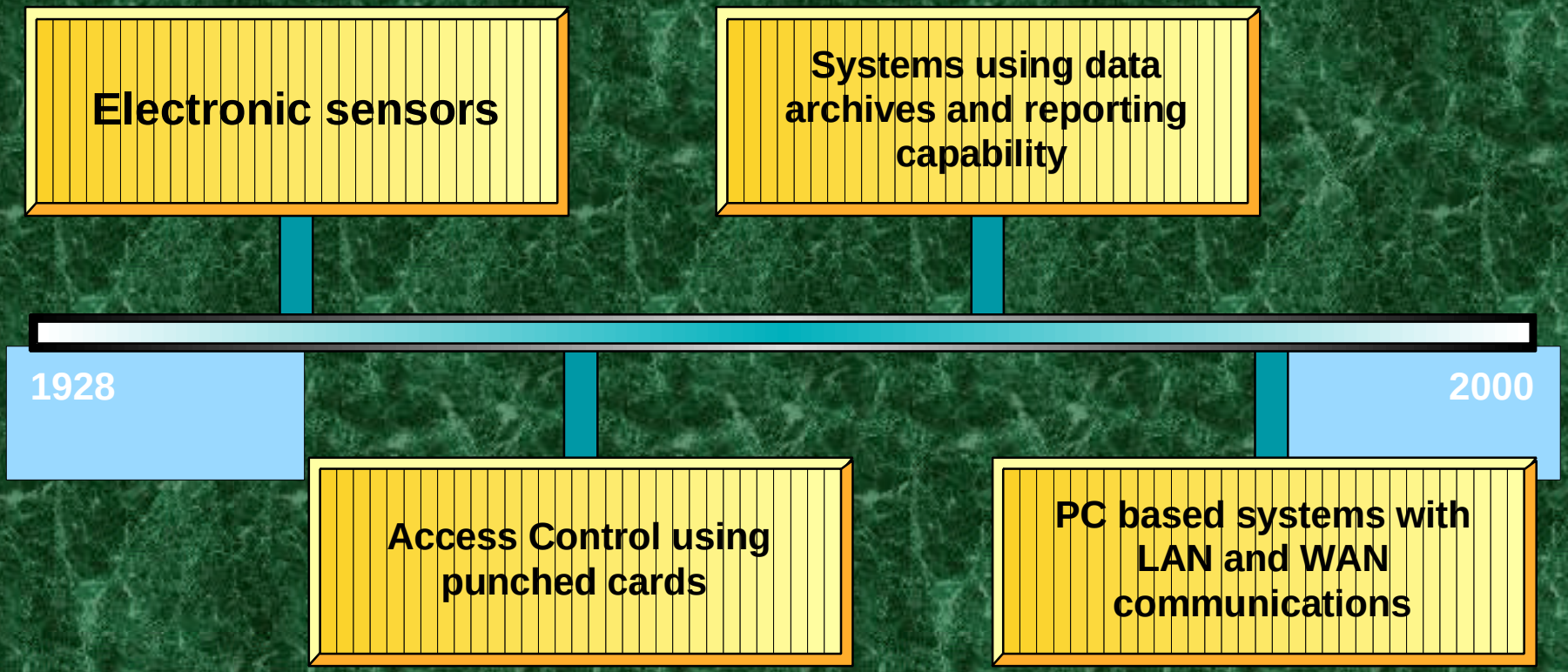
History

Although Physical Security Systems began to use computer technology very early, the systems utilized specially designed dedicated devices.

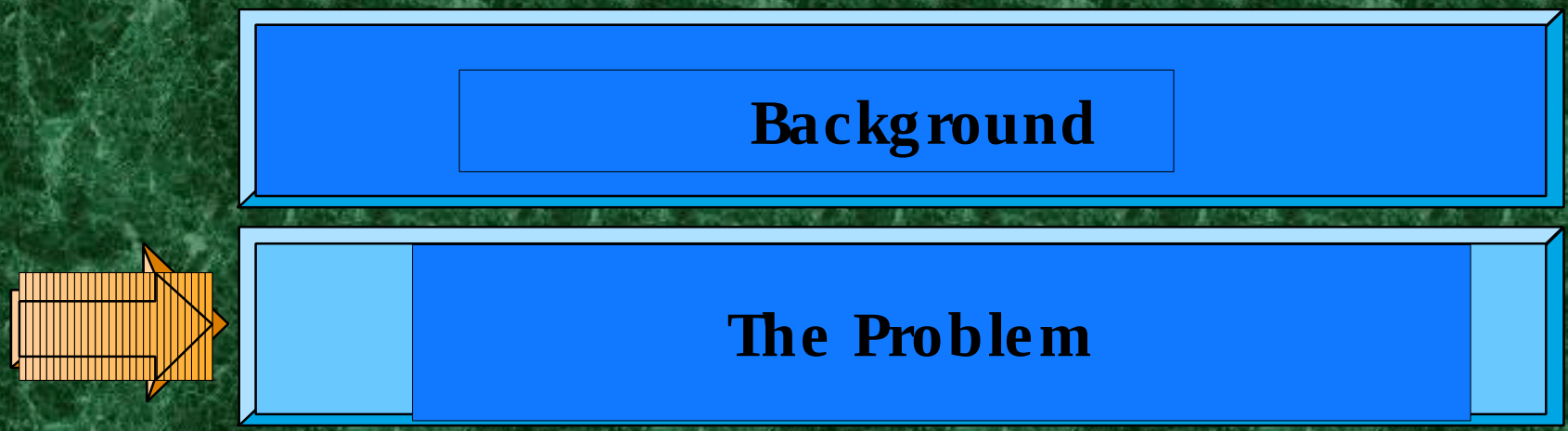
History *(continued)*

Only since the mid 1990s have electronic physical security systems begun to use general purpose technology for reporting, storage, and communication.

Sequence of Events



Outline



Problem Statement

Electronic Physical Security System communication, storage, and retrieval architecture is fully compatible with and often identical to current information technology systems.

Problem Statement *(continued)*

Why not use the same infrastructure for both systems?

Key Issues

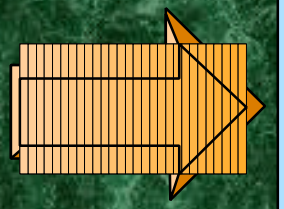
Key Issues	***Implications***
1. Technology the same	Potential for substantial duplication of effort and hardware
2. Cost of installation and maintenance	Duplicate infrastructure can result in nearly twice the expense
3. Trained operating personnel are difficult to recruit and retain	Duplicate systems could result in hiring compromises with poor or damaging results

Key Issues

Key Issues	***Implications***
4. An IT network must be taken down for periodic service	The physical security system would not be mission critical
5. An IT network has remote access	Although there may be an extensive firewall system, given enough time virtually all systems with remote access are vulnerable
6. All the eggs are in one basket	If the IT system goes down so does Physical Security
7. Speed	An IT network's speed is load dependent.

Outline

- Background
- The Problem
- The Alternatives



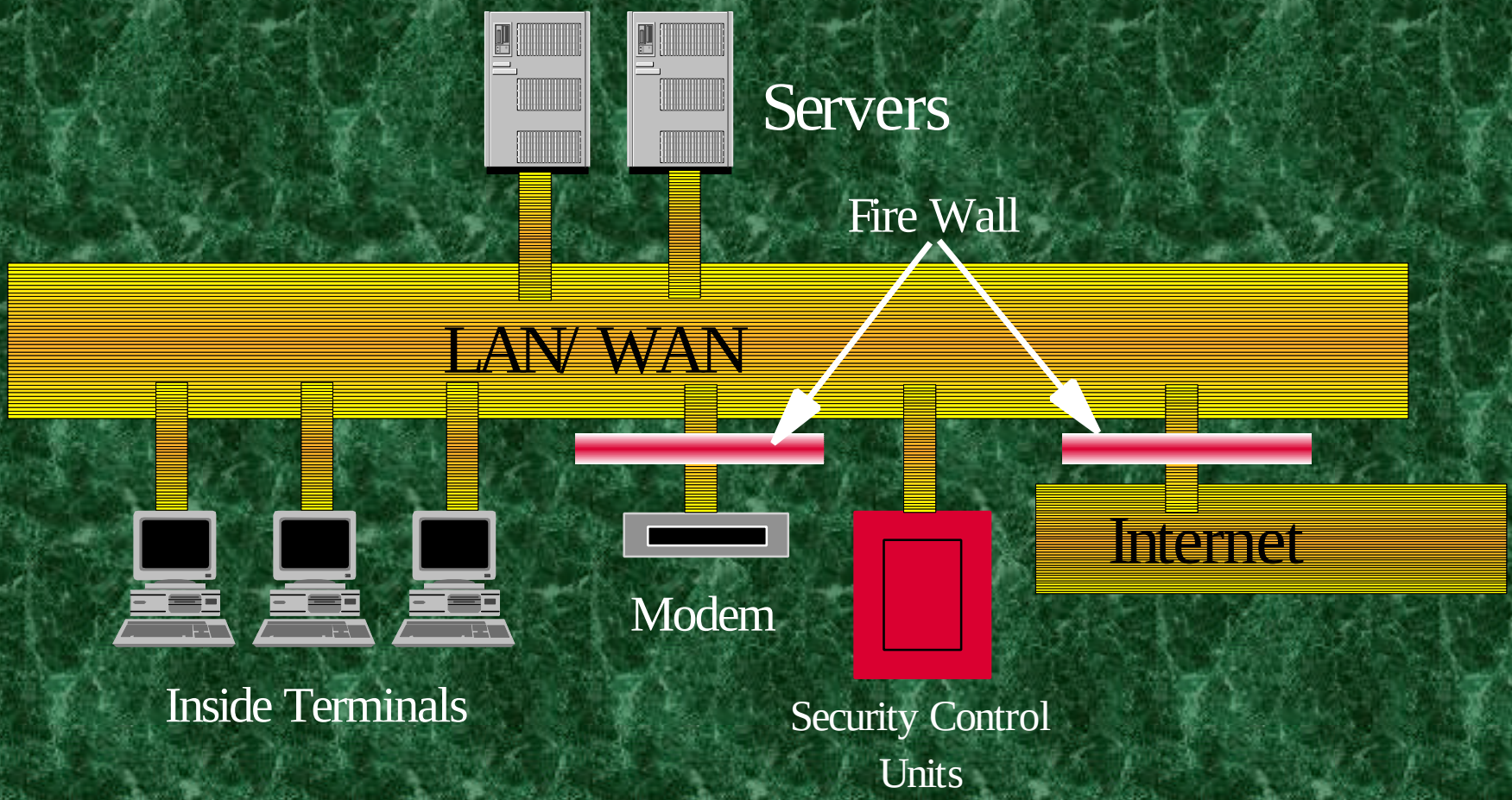
Potential Solutions

Combine the two systems in one IT network with one administration.

Maintain Separate Systems

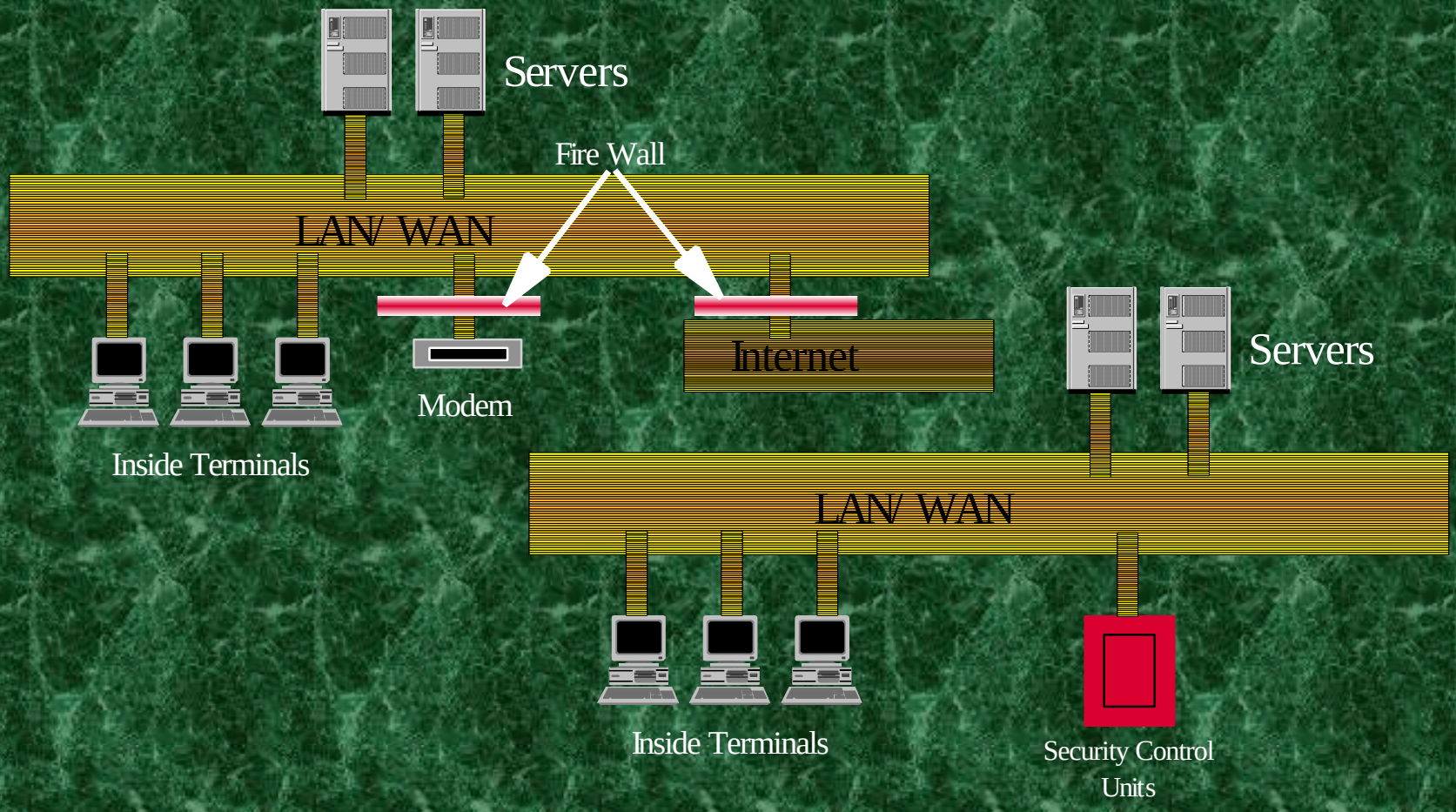
Potential Solutions

Option 1



Potential Solutions

Option 2



Evaluation of Alternatives

Key Issues	***Solution #1***	***Solution #2***
1. Cost	Lower Capital and operating expense	Higher Capital and operating expense
2. Security	Risk of intrusion	Secure System
3. Redundancy	Limited	Fully redundant backbone.
4. Speed	Depends upon the network load	High speed, always a light load.

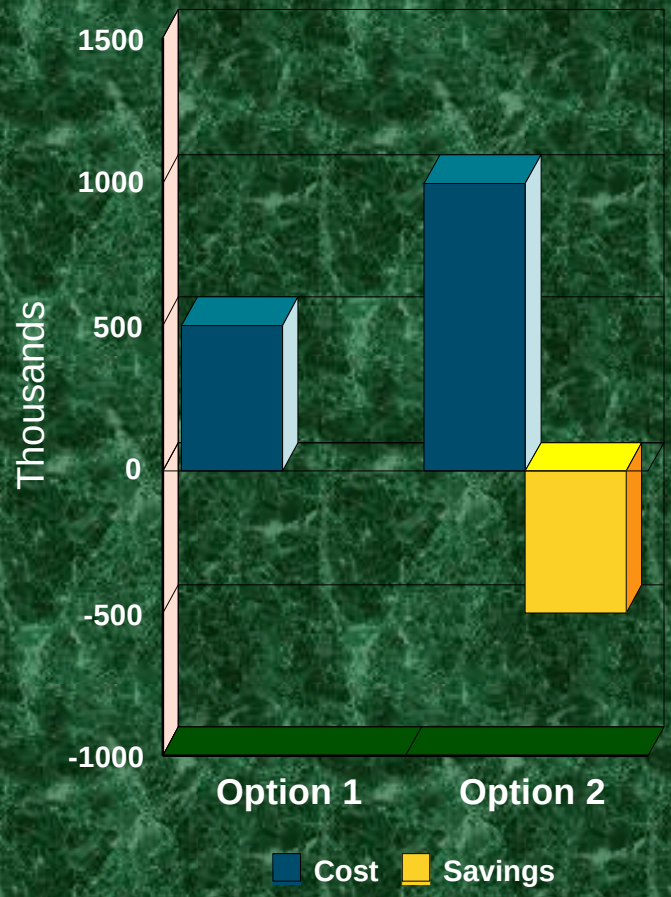
Recommended Strategy

Maintain Separate Networks

1. You have the ability to have a mission critical system.
2. No possibility of someone hacking into the system.
3. Significantly increased operating speed.
4. Redundancy.

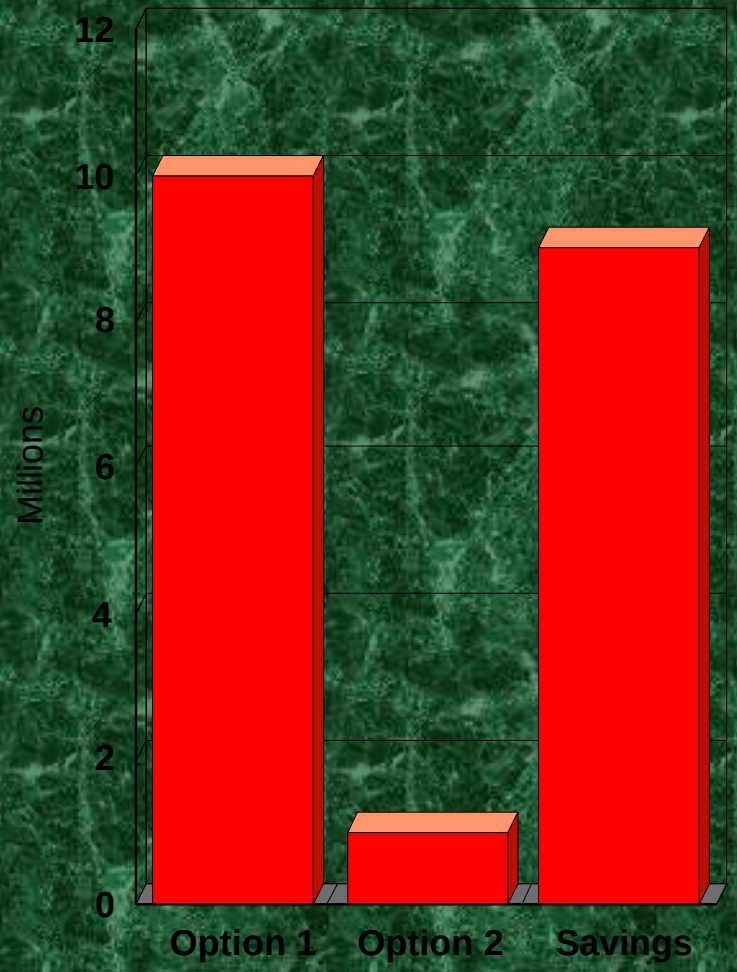
Cost Benefit Analysis

In a perfect world, the cost of the recommended solution could be as much as twice that of maintaining one network.



Opportunity Cost

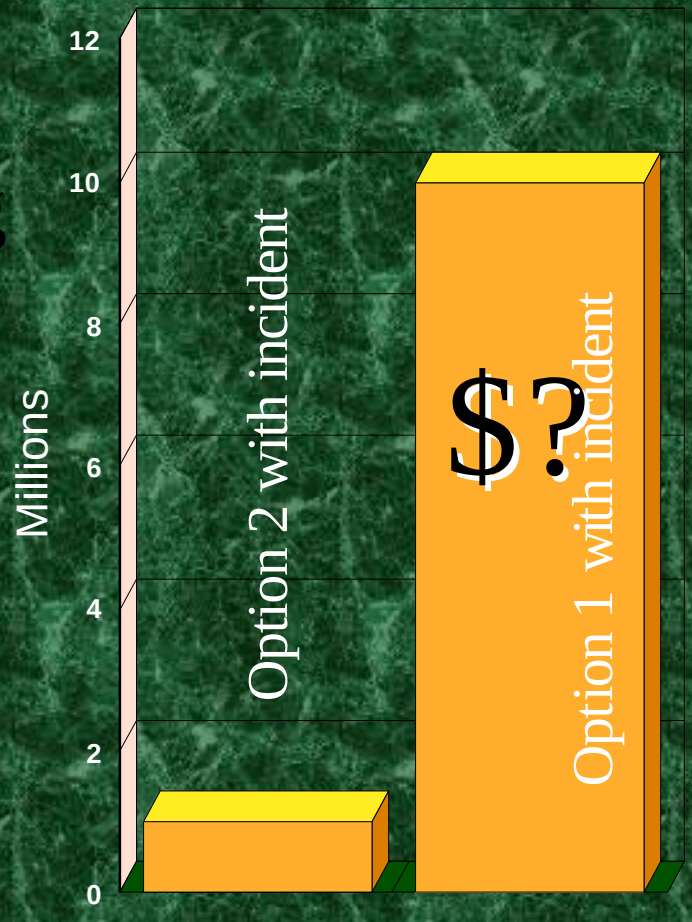
In the real world, the cost of maintaining a second network must be weighed against the cost of what it would take to repair the damage from a security breach.



Opportunity Cost

To determine this cost, multiply the probability of a particular incident occurring by the cost to repair it.

In most cases, although the probability may be small, the consequences are very high. This almost always leads to an unacceptable result.



Summary

Whenever possible, the Information Technology Network and the Electronic Physical Security Network should be separate.

The purpose, operation, and functional requirements of an IT network are very different from an EPS network.

It is never good to have all your eggs in one basket.

Thank You

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